PROGRAM CHARTER
FOR
Marine Transportation System
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1. EXECUTIVE SUMMARY

The Marine Transportation System (MTS) is the network of navigable waterways, ports and harbors, and the intermodal hubs that link to rail, air, road, and pipeline systems. America's MTS is the world's most extensive system for moving cargo and people safely and reliably. It gives American businesses competitive access to suppliers and markets worldwide, making the United States the world's leading maritime trading nation. Most products purchased in the U.S.—food, clothing, electronics, fuel for homes and cars—travel through the system's waterways, railways, and highways before reaching stores. The MTS Program provides products, information, tools, and services for safe, efficient, and environmentally sound navigation. Legislation has existed since 1807 that recognizes the need to keep the Nation's economic lifelines flowing through safe marine navigation.

Through the MTS Program, NOAA helps to reduce accidents, thereby saving lives, property and protecting the environment. The MTS Program also works to increase navigation efficiency and thus the economic return of marine commerce, and facilitates the development of landside port infrastructure in an environmentally responsible way. The MTS Program supports the Commerce and Transportation Goal. It is responsible for providing environmental information for the entire US Exclusive Economic Zone but concentrates efforts primarily along coastal areas, including the Great Lakes. The combination of concentrated population, sensitive environmental areas, and industrial ports and harbors along US coasts is typically where marine transportation's need for adequate decision support tools is the greatest. The 1999 Report to Congress, *An Assessment of the U.S. Marine Transportation System* (http://www.marad.dot.gov/publications/MTSreport/index.html) provides a wealth of information on MTS, including NOAA's role and contributions.

2. PROGRAM REQUIREMENTS.

A. Requirement Drivers:

(1) Coast & Geodetic Survey Act (*33 U.S.C. 883a et seq)* – organic authority for NOAA Ocean Service navigation services – "To provide charts and related information for the safe navigation of marine and air commerce, and to provide basic data for engineering and scientific purposes and for other commercial and industrial needs, NOAA is authorized to conduct the following activities: Hydrographic and topographic surveys; Tide and current observations; …."

(2) National Weather Service Organic Act (*15 U.S.C. § 313*) - provides the basic authority to forecast the weather, issue storm warnings, collect and transmit marine data such as ice forecasts for the benefit of commerce and navigation.

(3) Hydrographic Service Improvement Act (*33 U.S.C. 892 et seq*) – clarification and update of C&G Survey Act as well as authorization levels. In particular the HSIA authorized NOAA to promulgate standards; defined hydrographic data, products and services; established an advisory committee; created a quality assurance program, and codified a variety of authorities (contracts, leases, agreements, etc.).

(4) Coast Guard Carriage Requirements (*33CFR164 et al*). – requires NOAA corrected charts, tide and current predictions, and related navigational material be carried on certain vessels greater than 1600 gross tons. Implements at the domestic level the international Safety of Life at Sea treaty requirements for countries to provide and ensure utilization of navigation material.

(5) International Hydrographic Organization S-57 and S-52 Standards – standards developed by IHO and supported by International Maritime Organization that data format underlying vector charts and navigation material be built and presented to an international standard for safety of navigation by all ships in all waters.

(6) Ocean Action Plan – provides direction on Integrated Ocean Observing System, Integrated Ocean and Coastal Mapping, Committee on Marine Transportation System, Research and Development, and Ocean Data and Information management.

(7) Coastal Zone Management Act (*16 U.S.C. 1451 et seq* - authorizes technical support to states to balance economic development and environmental protection along the Nation's coasts. This act requires MTS to safeguard and restore the quality of coastal waters and to protect natural resources and existing uses of those waters. It also requires NOAA to review and give priority consideration to coastal-dependent uses and orderly processes for sighting major facilities related to national defense, energy, fisheries development, recreation, ports and transportation, and the location, to the maximum extent practicable, of new commercial and industrial developments in or adjacent to areas where such development already exists.

(8) Magnuson-Stevens Fishery Conservation and Management Act (*16 U.S.C. 1801 et seq., as amended*). Section 1855(b)(2) of Act, as amended requires Federal agencies that undertake actions that "may adversely affect" identified essential fish habitat to consult with NOAA in order to identify measures to conserve such habitat.

(9) *Real Time Tide and Current Data Systems in US Ports: Implementation Status, Safety and Efficiency Needs, Expansion Plan* (2000) – This joint NOAA/USCG report to Congress documented the need for real time data, NOAA policy for the cost shared approach to implementing the PORTS program, and the program status (the HSIA amendments of 2002 require NOAA to fully federally fund this program, subject to appropriations).

B. Mission Requirements:

1. Research, test, evaluate, develop and transition to operations enhanced or new technologies that improve the quality and/or cost effectiveness of NOAA's Marine Transportation System program.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act (2); The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

2. Monitor and collect the environmental information (hydrography, oceanography, meteorology, shoreline, etc) required to provide mariners and other users of the Marine Transportation System a complete picture of their operational surroundings.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**; The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

3. Work to leverage and integrate observing system capabilities with external partners toward improved geospatial density of observations and cost effective operations.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**; The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

4. Provide a user driven suite of decision support tools, products, forecasts and services that are delivered in a reliable, accurate and timely manner and constantly evolve to serve emerging needs.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**; The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

5. Provide data management stewardship for all MTS data from initial acquisition to long term archival and access.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**; The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

6. Facilitate the (re)development of port infrastructure in an environmentally sound manner to mitigate intermodal chokepoints in the U.S. transportation system.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**;); The Hydrographic Services Improvement Act **(3)**; Ocean Action Plan **(6)**; Coastal Zone Management Act **(7)**; Magnuson-Stevens Fishery Conservation and Management Act **(8);** *Real Time Tide and Current Data Systems in US Ports* **(9)**.

7. Support users of NOAA's MTS program products and services with a local presence to provide technical training, product education, feedback mechanisms, and other outreach functions.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**; The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

8. In collaboration with partners and in conformance with governing bodies at the national and international level, participate in the development of standards, specifications, procedures and protocols as appropriate in the conduct of NOAA's end-to-end Marine Transportation System program.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**;); The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4);** International Hydrographic Organization S-57 and S-52 Standards **(5);** Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

9. Conduct studies to understand the socioeconomic benefits of the products and services provided by NOAA's MTS program to the Nation.

   Linked Drivers: Coast and Geodetic Survey Act **(1)**; National Weather Service Organic Act **(2)**; The Hydrographic Services Improvement Act **(3)**; Coast Guard Carriage Requirements **(4)**; Ocean Action Plan **(6)**; *Real Time Tide and Current Data Systems in US Ports* **(9)**.

3. LINKS TO THE NOAA STRATEGIC PLAN

The MTS Program enables the Commerce and Transportation Goal to achieve outcomes, objectives and strategies that specifically address the marine transportation sector of the intermodal U.S. transportation system. The MTS Program provides the suite of information products and services required to give users a comprehensive picture of their operational environment and the ability to make sound decisions.

A. Goal Outcomes:

- Safe, secure, efficient, and seamless movement of goods and people in the U.S. Transportation System
- Environmentally sound development and use of the U.S. Transportation System.

B. Goal Performance Objectives:

- Enhance navigational safety and efficiency by improving information products and services.

C. Goal Strategies:

- Expand and enhance advanced technology monitoring and observing systems, such as weather and oceanographic observations, ice forecasts and nowcasts,

hydrographic surveys, and precise positioning coordinates, to provide accurate, up-to-date information.

- Develop and apply new technologies, methods, and models to increase the capabilities, efficiencies, and accuracy of transportation-related products and services.
- Develop and implement sophisticated assessment and prediction techniques, products, and services to support decisions on aviation, marine, and surface navigation efficiencies; coastal resource management; and transportation system management, operations, and planning.
- Build public understanding of the science and technology involved and the role of the environment in commerce and transportation through outreach, education, and industry collaboration.

4. PROGRAM OUTCOMES

- MTS users experience a reduction in navigation-related accidents, which protects lives, property and the environment.
- MTS users save time and money through more efficient operations.
- MTS users conduct port infrastructure (re)development activities in an environmentally-sound manner.

5. PROGRAM ROLES AND RESPONSIBILITIES. This program is established and managed with the procedures established in the NOAA Business Operations Manual. Responsibilities of the Program Manager are described in the BOM. Responsibilities of other major participants are summarized below:

A. **Participating Line Office, Staff Office, and Council Responsibilities**:

1. NOAA Ocean Service is responsible for: ocean technology research and development; the collection of hydrographic, shoreline and oceanographic data and observations; the analysis and production of navigation-related products, services, information, data and best practices; ensuring accessible, current, accurate data and relevant standards for integrated data sharing; delivery of mapping, charting, oceanographic products and services; facilitating environmentally sound port (re) development in partnership with other NOAA Line Offices; and providing customer support, education and regional/international outreach to navigation and non-navigation customers.

2. NOAA Satellite and Information is responsible for: ice data acquisition and delivery of ice nowcasts and forecasts; and data stewardship.

3. NOAA Marine and Aviation Operations is a critical partner responsible for providing observation platform (vessels, aircraft), cutting edge technology, data acquisition and processing support that is essential to MTS.

4. NOAA Fisheries has regulatory responsibilities associated with the (re) development of port infrastructure.

5. The Office of the Chief Administrative Officer provides corporate services such as facilities and real property management, safety and environmental compliance and other administrative support services

6. The Acquisition and Grants Office is responsible for providing policy guidance and program support in acquisition and financial assistance, award and administration.

7. The Office of the Chief Information Officer is responsible for providing corporate IT services and guidance, including security, required by the program.

8. Workforce Management provides essential human resource corporate guidance and support systems.

9. NOAA General Counsel is responsible for providing legal advice on interagency agreements, grants, legislation, treaties and other legal instruments.

10. The CFO/CAO Council provides NOAA-wide financial and/or administrative management policies, procedures and practices.

11. The CIO Council provides NOAA-wide IT policies, systems architecture, security and other procedures and practices that guide MTS IT planning and execution.

12. The NOAA Ocean Council provides NOAA-wide guidance on how resources for ocean-related initiatives should be allocated, NOAA strategy for leadership on ocean issues at both national and international levels, and recommendations for improving customer service and product delivery.

13. The Observing System Council provides NOAA-wide guidance on compliance with NOAA's observing system architecture that are incorporated by MTS into the planning and implementation of its five Integrated Ocean Observing System federal backbone observing systems.

14. The Research Council provides guidance on scientific and technological issues, research and development investments, peer reviews, research strategies, best practices, research to operations and promotes Federal Geographic Data Consortium compliant metadata.

B. External Agency/Organization Responsibilities:

1. The US Coast Guard (USCG) and Army Corps of Engineers (USACE) are close partners with NOAA in supporting safe marine navigation. For example, the USCG

maintains the nation's Aids to Navigation and issues Notice to Mariners, and the USACE maintains the nation's dredged shipping channels.

2. The US Navy and Coast Guard partner with NOAA in operating the joint National Ice Center which issues ice forecasts and products in support of safe marine navigation.

3. Regional Associations are emerging key partners in the establishment of an Integrated Ocean Observing System. The MTS Services Program operates several national backbone observation systems such as the National Water Level Observation Network, National Current Observation Program, Hydrographic and Shoreline Surveys, and the Physical Oceanographic Real Time System.

4. The Cabinet level Committee on Marine Transportation System provides an inter-departmental coordinating mechanism to recommend strategies and implement plans to maintain and improve the MTS.

6. END USERS AND PROGRAM BENEFICIARIES:

A. Maritime Commerce – the program provides critical decision support information, tools and services to state and local governments, shippers, pilots, port authorities, fisherman and others who rely on safe and efficient marine navigation.

B. Homeland Security – the program provides critical decision support information, tools and services to the US Navy, US Coast Guard, Military Sealift Command and others who must safely and efficiently navigate US waters to provide national security.

C. Emergency Responders – the program provides critical decision support information, tools and services to emergency managers for hazardous materials response, natural hazard (storms, hurricanes, tsunamis), and other Incidents of National Significance.

D. Coastal Resource Managers – the program provides critical decision support information, tools and services to significantly improve federal, state, and local coastal resource managers' ability to conduct coastal zone planning, restoration projects, vulnerability assessments and other resource management issues.

E. Port Infrastructure (re)Development – the program provides critical decision support information, tools and services to state and local port infrastructure planners to facilitate (re)development of port infrastructure in an environmentally sound manner.

F. General Public – the program provides information, tools and services to recreational and other users of the coastal environment.

G. Academia – the program awards grants and promotes other collaborative activities to support extramural research and development, particularly with respect to navigation technologies. The program also provides data and information critical for a broad range of research issues such as long-term sea level rise.